

REMARKS

Claims 61-62, and 66-69 remain in the application. Claims 1-47, 52, 57-60 and 63-65 were previously canceled without prejudice to further prosecution. Claims 48-51 and 53-56 are hereby canceled without prejudice to further prosecution in order to facilitate allowance of the remaining claims. No new matter is being added.

35 USC 103 (a)

Claims 61-62, and 66-69 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura et al., in view of Larson et al., and in further view of Ose et al. Applicants respectfully traverse this rejection in regards to claims 61-62 and 66-69 as hereby amended.

Patentability of Claim 61 and dependent claims thereof

Claim 61 recites a method of imaging a substrate in a dual-beam secondary electron emission microscope primarily with secondary electrons. The method is limited to using a dual beam including both an influx of low-energy electrons and an influx of higher-energy electrons, filtering out the reflected low-energy electrons, and imaging using the secondary electrons generated by the higher-energy electrons. Support for claim 61 is found in the originally-filed FIG. 19 and the description thereof on page 21 of the specification.

Applicants respectfully reiterate that claim 61 is patentable over the cited art because neither Nishimura et al., nor Larson et al., nor Ose et al., nor any combination thereof, disclose a method using a dual beam including both an influx of low-energy electrons and an influx of high-energy electrons, filtering out the reflected low-energy electrons, and imaging using the secondary electrons generated by the higher-energy electrons. On the contrary, Nishimura et al. uses an incident charged-particle beam and UV light irradiation, Larson et al. uses incident x-rays and low-energy electrons, and Ose et al. uses a single incident electron beam. Hence, each of Nishimura et al., Larson et al., and Ose et al. teach against the claimed use of a dual beam with both low-energy incident electrons and high-energy incident electrons.

Claim 62 depends from claim 61 and is patentable for at least the same reasons.

Patentability of Claim 66 and dependent claims thereof

Claim 66 recites a method of imaging a substrate in a dual-beam secondary electron emission microscope primarily with reflected electrons. The method is limited to using a dual beam including both an influx of low-energy electrons and an influx of higher-energy electrons, filtering out the secondary electrons generated by the high-energy electrons, and imaging using the low-energy reflected electrons. Support for claim 66 is found in the originally-filed FIG. 22 and the description thereof on pages 22-23 of the specification.

Applicants respectfully reiterate that claim 66 is patentable over the cited art because neither Nishimura et al., nor Larson et al., nor Ose et al., nor any combination thereof, disclose a method using a dual beam including both an influx of low-energy electrons and an influx of high-energy electrons, filtering out the secondary electrons generated by the high-energy electrons, and imaging using the low-energy reflected electrons. On the contrary, Nishimura et al. uses an incident charged-particle beam and UV light irradiation, Larson et al. uses incident x-rays and low-energy electrons, and Ose et al. uses a single incident electron beam. Hence, each of Nishimura et al., Larson et al., and Ose et al. teach against the claimed use of a dual beam with both low-energy incident electrons and high-energy incident electrons.

Claims 67-68 depend from claim 66 and are patentable for at least the same reasons.

Patentability of Claim 69

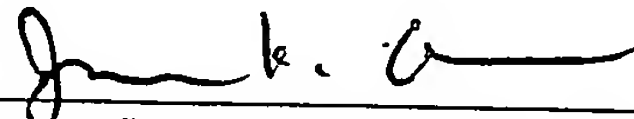
Claim 69 recites a particular method of imaging a substrate in a dual-beam secondary electron emission microscope. The method is limited to using a dual beam including both an influx of low-energy electrons and an influx of higher-energy electrons, rejecting both perpendicularly-emitted secondary electrons and specularly-scattered reflected electrons, and imaging using both the non-perpendicularly-emitted secondary electrons and the non-specularly-scattered reflected electrons. Support for claim 69 is found in the originally-filed FIG. 25 and the description thereof on pages 24-25 of the specification. As discussed in the specification, the method of claim 69 advantageously increases sensitivity to particles and other contamination defects.


Conclusion

For the above-discussed reasons, applicants believe that remaining 61-62, and 66-69, as now amended, are patentable over the cited art. Favorable action is respectfully requested. The examiner is also invited to call the below-referenced attorney to discuss this case.

Respectfully Submitted,

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